

Canadian Radiologists' Perception of the PGY-1 Basic Clinical Year: Results of a National Survey



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Objectives

- At the end of this session, the participants will be able to:
 1. describe the current status of the Basic Clinical Year (BCY).
 2. recognize the current controversies regarding the BCY.
 3. summarize the Canadian data regarding the BCY.

March 15, 1994

Introduction

Status of the Basic Clinical Year (PGY-1)

- Year that is unique to North American residency programs
- In Canada, called the **Basic Clinical Year** by the Royal College and occurs in PGY-1
 - Residents rotate through medical and surgical disciplines, many of which are “left over” from the rotations required for the rotating internship
 - Residents “belong” to their radiology program

Introduction

Status of the Basic Clinical Year (PGY-1)

- In the United States, called either a **Transitional Year** or an **Internship**
 - Transitional Year = combination of medical/surgical disciplines
 - Internship Year = either medical or surgical (most popular option)
 - Residents must match separately to these years and it may not be at the same institution they will complete their radiology training

Introduction

- Currently, the Royal College requirements for the PGY-1 BCY for Diagnostic Radiology residents are broad
- Requirements:
 - Must include eleven 4-week blocks “of broad-based medical experience relevant to Diagnostic Radiology.”
 - Suggested blocks include:
 - Internal medicine
 - General surgery
 - Pediatrics
 - Obstetrics and gynecology
 - Emergency medicine
 - Neurology
 - Family medicine

Introduction

- Residents are restricted to a maximum of 2 blocks:
 - diagnostic radiology
 - nuclear medicine
 - basic science or
 - research related to Diagnostic radiology
- Beyond this, there are no further guidelines and many Canadian programs include their residents in a common rotating year shared by other disciplines (e.g. radiation oncology, anaesthesia, obs/gyn, psychiatry, etc)

Introduction

- Given the changing demands of radiology residency education, there has been a lot of discussion regarding the educational value of the BCY



Educational Perspectives

Is It Time to Jettison Radiology's Clinical Year Requirement?

January 2016,
Academic Radiology

Richard B. Gunderman, MD, PhD, John P. Tobben, MD

"Many feel trapped devoting a year of their life to a course of training whose purpose has never been adequately defined...In the case of the "clinical year," we believe that no such compelling account is possible."

March 2016, Academic Radiology

Letter to the Editor

Clinical Internship for Radiology: To be, or Not to be



From:

Faezeh Sodagari, MD, Pedram Golnari, MD

residency programs and the American Board of Radiology can take part in improving and unifying the standards of clinical competency through collaboration with clinical programs and the Accreditation Council for Graduate Medical Education. Most radiology programs are within well-resourced academic or community hospitals. They have the means to implement.

"We recommend integrating clinical year into radiology residency within the same institution which can spare diagnostic radiology applicant's anxiety, cost, travel time, and a possible relocation. The clinical year can be divided in 4 years of diagnostic radiology residency."



Introduction

- Both sides agree that the BCY should be changed – either eliminated completely or altered to better meet the needs of current trainees
- Despite the controversy, it is unlikely that this year will be eliminated in Canadian training programs
 - Given the transition to CBME, Canadian programs have an opportunity to reevaluate this year and make changes that better serve residents
- However, it is not entirely clear how to alter this year in a way that is meaningful for all residents regardless of their scope of future practice

Canadian Perspective

- We wanted to determine the attitude of Canadian radiology trainees and practicing radiologists to the BCY and to determine which rotations radiologists felt would be most valuable to offer in PGY-1 to prepare residents for the specialty
- Following IRB approval, an anonymous online survey was administered to 1595 English-speaking Canadian radiologists and radiology trainees (residents and fellows) through national and provincial radiology societies
 - Special thanks to the CAR and the provincial societies for their help and support with this project!



Canadian Association of Radiologists
L'Association canadienne des radiologistes

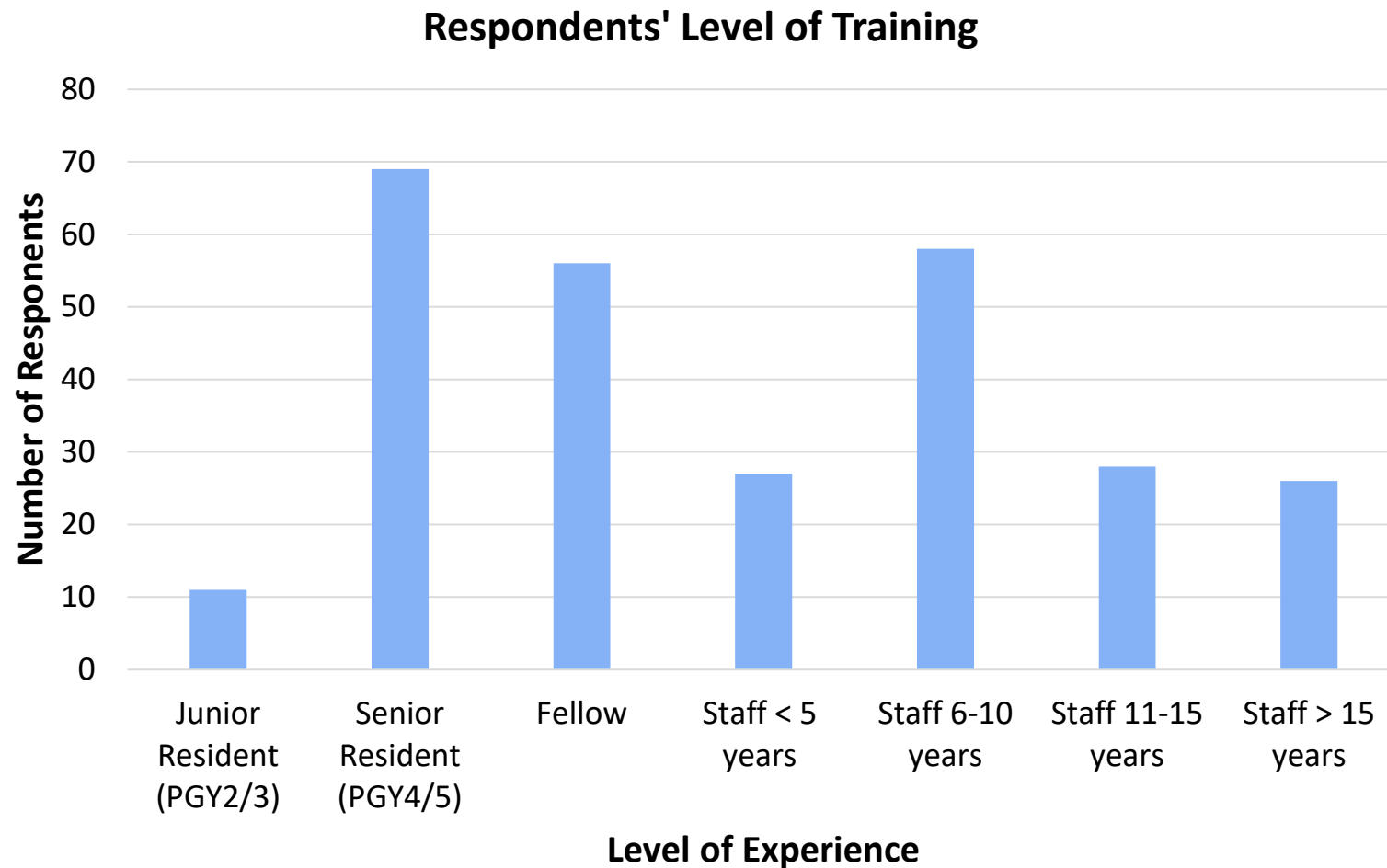


Demographic Data

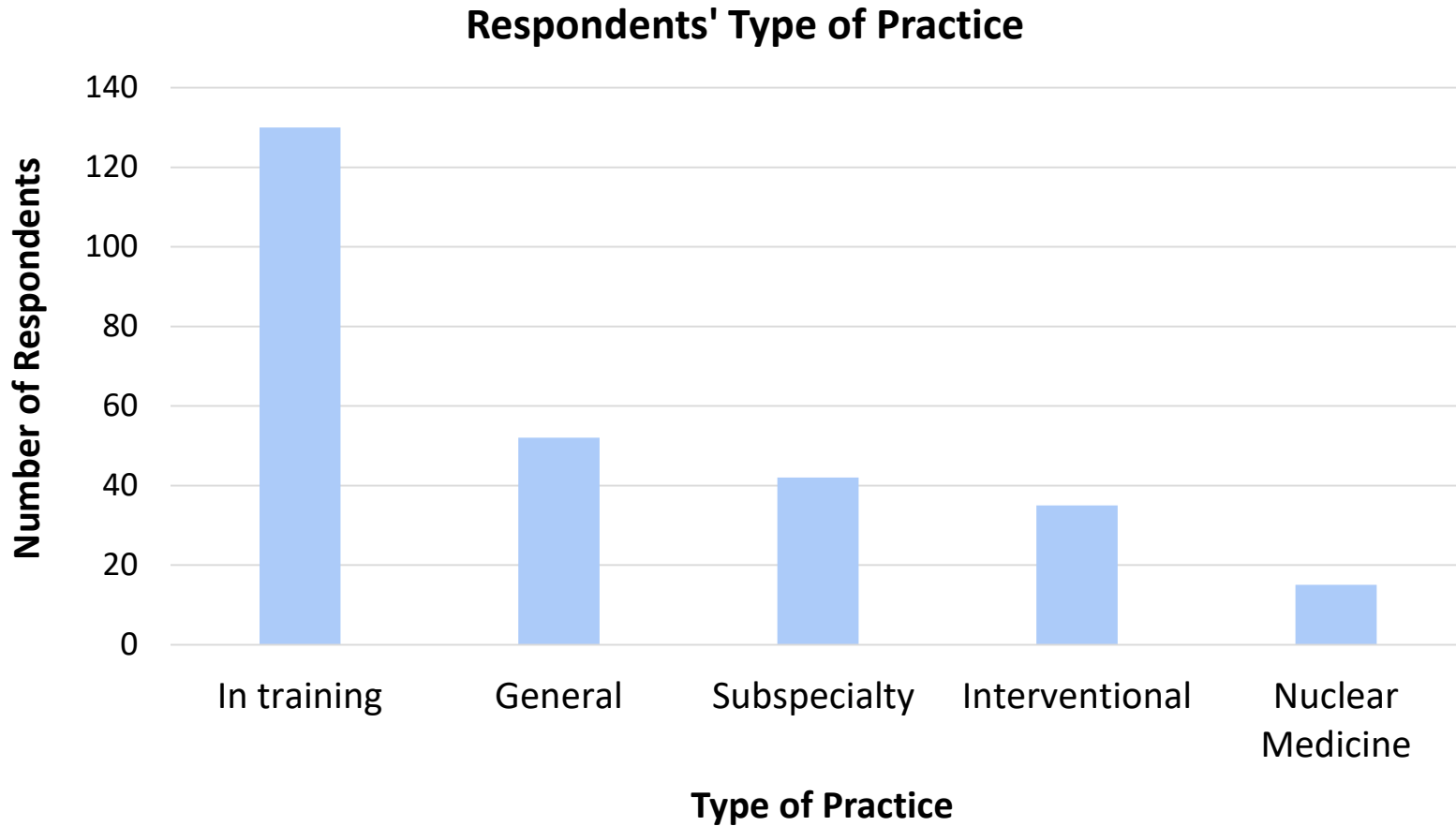
- 275 respondents to the survey, yielding a response rate of 17.2%
- 201 respondents (73.1%) were male, 73 (26.9%) were female, and 1 declined to answer
- Respondents' level of experience was almost equally divided between in-training (49.5%) and staff (50.5%) radiologists



Demographic Data



Demographic Data



Overall Attitude

- 71.3% of respondents were in favour of having a BCY, 16.4% were against this requirement and 12.4% were neutral
- There was a statistically significant difference between staff radiologists and trainees **with staff more strongly favouring the BCY** (84.1%) than trainees (56.9%) ($p < 0.0001$)
- There was no statistically significant difference between responses and type of practice (e.g. general versus subspecialty)

To assess whether there are differences in the ratings and therefore rankings of the rotations by gender, position, and level of training, the Kruskal-Wallis one-way ANOVA test was used with significance defined as $p < 0.05$.

Overall Attitude

- 49.5% felt that PGY-1 should remain a general year while 35.3% favoured targeting rotations to intended type of practice and 15.3% were neutral.
- When asked about the length of each clinical rotation, 58.9% favoured the current 4-week rotation model
- When asked if there should be formal radiology training prior to the PGY-1 clinical rotations, the responses were:
 - Yes 44.4%
 - Neutral 24.4%
 - No 31.3%

Most Important Rotations

- As a whole, **respondents favoured general surgery rotations** as compared to general medical, medical subspecialty, or surgical subspecialty, as most relevant to their clinical practice (agreement rate of 48.3%)
- Interventional radiologists found general surgery and surgical subspecialty to be equally as relevant (45.7% each)

Most Important Rotations

Rotations selected as <u>essential</u> :	Rotations selected as <u>very useful</u> :
• Emergency Medicine (48.7%) • General Surgery (46.6%)	• Orthopedics (45.8%) • Trauma (44.4%) • Neurosurgery (43.3%) • Neurology (42.2%) • Hepatobiliary Surgery (38.9%)



“Ideal” Basic Clinical Year

The “Ideal” Basic Clinical Year for Diagnostic Radiology Residents

- | | |
|------------------------------|---------------------------|
| 1. Emergency medicine | 8. Gynecology* |
| 2. General surgery | 9. Hepatobiliary surgery* |
| 3. Orthopedics | 10. Intensive care* |
| 4. Trauma | 11. Oncology |
| 5. Neurosurgery | 12. Pulmonology |
| 6. Neurology | 13. Pathology |
| 7. General Internal Medicine | |

The top 13 rotations were ranked based on the Likert items and using the Schulze method. The asterisk (*) denotes a tie between disciplines. No statistical significance was observed between the respondents' rotation choices type of practice or level of training.

Least Important Rotations

- The rotations which respondents felt were the least helpful to their practice of radiology included:
 - Obs/gyn
 - General medicine
 - Pediatrics
 - Psychiatry
- Obs/gyn comprised more of the least helpful responses (17.6%) than most helpful (4.5%)
 - A contributing reason for the divided response for obstetrics and gynecology could be because for the “other” survey question, respondents tended to write them in together as one rotation whereas for the Likert questions they were considered separately.
- Obstetrics/gynecology and general medicine were both commonly reported as the most helpful and the least helpful suggesting that opinions of these rotations may be quite divided.

Survey Discussion

- Despite the recent debate in the literature surrounding the value of the PGY-1 BCY, most respondents (71.3%) were in favour of including this year in Radiology Residency Programs
 - Our percentage is higher than previously reported in the literature
 - A decade ago, Baker et al. conducted a survey of American radiology residents and found that only 49% felt that this year was necessary for their development as radiologists
- One explanation for this difference may be that radiologists are now more integrated into clinical teams and are responsible for a larger body of subspecialty clinical knowledge that is no longer obtainable through medical school alone

Survey Discussion

- Interestingly, staff radiologists more strongly favoured the Basic Clinical Year (84.1%) than trainees (56.9%)
 - May reflect residents' lack of awareness of the clinical knowledge required in clinical practice or their current focus on learning radiology
- Although completion of a BCY was favoured in our study, close to half of radiologists (45%) would like there to be formal radiology training prior to these PGY-1 clinical rotations
 - Several programs have successfully integrated early radiology training into the BCY without detracting from residents' clinical experience
 - At our institution, a longitudinal "Introduction to Radiology" course is offered to PGY-1 residents to acquaint them with radiology terminology and to provide them with an approach to interpreting images

Survey Discussion

- Many of the rotations that respondents felt to be “essential” and “very useful” are currently not required (and therefore not included) in many institutions’ PGY-1 schedule
- Overall, the data suggest a trend towards including more subspecialty rotations in which patient diagnosis and management depends heavily on imaging (e.g. surgical subspecialties, trauma, neurosurgery, and neurology) in the BCY
 - Interestingly many of these rotations deemed to be “very useful” are currently included in the majority of medical undergraduate clerkship rotations further suggesting that the clinical knowledge obtained in medical school is insufficient to prepare radiologists for independent practice
- In further support of the trend towards increasing specialization within the discipline, 35% of respondents felt that rotations should be targeted to the residents’ intended type of practice

Limitations

- The survey was only available in English limiting the number of Canadian participants
- The survey reached only radiologists affiliated with societies which may have lead to a bias sample
- Radiologists who did not have a strong opinion on the status of the basic clinical year did not take the time to respond

Recommendations

1. Canadian radiology residency programs should maintain a PGY-1 BCY
2. Objectives of the BCY should be modified so that residents can be exposed to more of the high yield rotations (avoid “repeating” a third year medical student clerkship)
3. Introduce radiology concepts earlier than PGY-2

Questions?

Academic
RADIOLOGY

Darras KE, Arnold A, Mar C, Forster BB, Probyn L, Chang SD. Rethinking the PGY-1 Basic Clinical Year: A Canadian National Survey of its Educational Value for Diagnostic Radiology Residents. *In press*

